What is claimed is:

1. A recliner device for a vehicle seat,

said vehicle seat comprising a seat back and a seat cushion;

said recliner device comprising:

a first bracket provided at a side of said seat back and extending downwardly from the side of said seat back;

said first bracket having a lower end portion;

a second bracket provided at a side of said seat cushion and extending rearwardly from said side of said seat cushion;

said second bracket having a rear end portion;

said first bracket being pivotally connected at said lower end portion thereof to said rear end portion of said second bracket by means of a supporting pin with said lower end portion thereof being overlapped on said rear end portion of said second bracket, whereby said seat back is pivotable around said supporting pin in such a manner that an attitude of said seat back is changed to a vertically standing posture, a forwardly inclined posture or a rearwardly inclined posture relative to said seat cushion;

said lower end portion of said first bracket having spaced apart notches formed at a circumferential edge thereof so as to be coaxial with said supporting pin;

a locking pin having an inner end portion and an outer end portion;

said locking pin penetrating said rear end portion of said second bracket so as to be axially movable and protruding toward said circumferential edge of said lower end portion of said first bracket;

a spring mounted around said locking pin for urging said locking pin

toward said circumferential edge of said lower end portion of said first and causing said inner end portion of said locking pin to be engaged with any one of said notches, to thereby allow said seat back to be maintained in said vertically standing posture, said forwardly inclined posture or said rearwardly inclined posture;

a receiving base mounted on an outer surface of said rear end portion of said second bracket and coaxially surrounding said operating pin;

an operating means mounted to said outer end portion of said locking pin so as to be opposed to said receiving base; and

cooperating cam surface means on said operating means and said receiving base, wherein when said operating means is rotated relative said receiving base, said locking pin is axially moved away from said circumferential edge of said lower end portion of said first bracket and then disengaged from said one of said notches with which said inner end portion of said locking pin has been engaged until now, whereby said seat back is allowed to be pivoted around said supporting pin.

2. A recliner device according to claim 1, wherein said operating means comprises an operating knob having a substantially cylindrical section, said receiving base is formed into a substantially ring-shape, and said cooperating cam surface means comprises a first cam surface formed on a circumferential edge of said substantially cylindrical section which is opposed to a circumferential edge of said substantially ring-shaped receiving base, and a second cam surface formed on said circumferential edge of said substantially ring-shaped receiving base, each of said first and second cam surfaces comprising two spaced apart crest portions and two

spaced apart valley portions which are adapted to be releasably engaged with each other, each of said crest portions having a height enough to allow said locking pin to be axially moved so as to be disengaged from said one of said notches of said first bracket.

3. A vehicle seat according to claim 1, wherein said operating means comprises an operating knob having a substantially cylindrical section, said receiving base is formed into a substantially ring-shape, and said cooperating cam surface means comprises a first cam surface formed on a circumferential edge of said substantially cylindrical section which is opposed to a circumferential edge of said substantially ring-shaped receiving base, and a second cam surface formed on said circumferential edge of said substantially ring-shaped receiving base, said first and second cam surfaces having the same shape, said first cam surface comprising first and second crest portions spaced apart at intervals of about 180 degrees around said circumferential edge of said substantially cylindrical section, and first and second spaced apart valley portions each being disposed between said first and second crest portions and continuously connected to said first and second crest portions, said second cam surface comprising third and fourth crest portions spaced apart at intervals of about 180 degrees around said circumferential edge of said substantially ring-shaped receiving base, and third and fourth spaced apart valley portions each being disposed between said third and fourth crest portions and continuously connected to said third and fourth crest portions, said first and second crest portions and said third and fourth crest portions being adapted to be releasably engaged with said third and fourth valley portions and said first

and second valley portions, respectively, and each of said crest portions having a height enough to allow said locking pin to be axially moved so as to be disengaged from said one of said notches of said first bracket.

4. A recliner device according to claim 2, wherein said first and second crest portions are spaced apart at intervals of about 180 degrees around said circumferential edge of said substantially cylindrical section, each of said first and second spaced apart valley portions being disposed between said first and second crest portions and continuously connected to said first and second crest portions, and said third and fourth crest portions are spaced apart at intervals of about 180 degrees around said circumferential edge of said substantially ring-shaped receiving base, said each of said third and fourth spaced apart valley portions being disposed between said third and fourth crest portions and continuously connected to said third and fourth crest portions.

5. A recliner device according to claim 1, wherein said operating means comprises an operating knob having a substantially cylindrical section, said receiving base is formed into a substantially ring-shape, and said cooperating cam surface means comprises a first cam surface formed on a circumferential edge of said substantially cylindrical section which is opposed to a circumferential edge of said substantially ring-shaped receiving base, and a second cam surface formed on said circumferential edge of said substantially ring-shaped receiving base, said first cam surface comprising first and second axially extending surfaces spaced at intervals of about 180 degrees around said circumferential edge portion of said substantially cylindrical section, a first circumferentially sloping surface

descending from a tip edge of said first axially extending surface to a root point of said second axially extending surface, and a second circumferentially sloping surface descending from a tip edge of said second axially extending surface to a root point of said first axially extending surface, said second surface comprising third and fourth axially extending surface spaced at intervals of about 180 degrees around said circumferential edge portion of said ring-like receiving base, a third circumferentially sloping surface descending from a tip edge of said third axially extending surface to a root point of said fourth axially extending surface, and a fourth circumferentially sloping surface descending from a tip edge of said fourth axially extending surface to a root point of said third axially extending surface.

6. A recliner device according to claim 1, wherein said operating means comprises an operating knob having a substantially cylindrical section, said receiving base is formed into a substantially ring-shape, and said cooperating cam surface means comprises a first cam surface formed on a circumferential edge of said substantially cylindrical section which is opposed to a circumferential edge of said substantially ring-shaped receiving base, and a second cam surface formed on said circumferential edge of said substantially ring-shaped receiving base, said first cam surface comprising first and second axially extending surfaces spaced at intervals of about 180 degrees around said circumferential edge portion of said substantially cylindrical section, a first circumferentially sloping surface descending from a tip edge of said first axially extending surface to a root point of said second axially extending surface, and a second

circumferentially sloping surface descending from a tip edge of said second axially extending surface to a root point of said first axially extending surface, said second surface comprising third and fourth axially extending surface spaced at intervals of about 180 degrees around said circumferential edge portion of said ring-like receiving base, a third circumferentially sloping surface descending from a tip edge of said third axially extending surface to a root point of said fourth axially extending surface, and a fourth circumferentially sloping surface descending from a tip edge of said fourth axially extending surface to a root point of said third axially extending surface, said circumferentially sloping surfaces formed on one of said operating knob and said receiving base having lengths shorter than lengths of said circumferentially sloping surfaces formed on the other of said operating knob and said receiving base, and said axially extending surfaces formed on said one of said operating knob and said receiving base being provided at their tip edges with stopper projections.

7. A recliner device according to claim 1, wherein said operating means comprises an operating knob having a substantially cylindrical section, said receiving base comprises a substantially plate-like body having a ring-like receiving portion, said substantially plate-like body being fixed on said outer surface of said rear end portion of said second bracket with said ring-like receiving portion surrounding said locking pin, and said cooperating cam surface means comprises a first cam surface formed on a circumferential edge of said substantially cylindrical section which is opposed to a circumferential edge of said ring-like receiving portion, and a second cam surface formed on said circumferential edge of said ring-like

receiving section, each of said first and second cam surfaces comprising two spaced apart crest portions and two spaced apart valley portions which are adapted to be releasably engaged with each other, each of said crest portions having a height enough to allow said locking pin to be axially moved so as to be disengaged from said one of said notches of said first bracket.

8. A recliner device according to claim 7, wherein said first and second crest portions are spaced apart at intervals of about 180 degrees around said circumferential edge of said substantially cylindrical section, each of said first and second spaced apart valley portions being disposed between said first and second crest portions and continuously connected to said first and second crest portions, and said third and fourth crest portions are spaced apart at intervals of about 180 degrees around said circumferential edge of said ring-like receiving portion, said each of said third and fourth spaced apart valley portions being disposed between said third and fourth crest portions and continuously connected to said third and fourth crest portions.

9. A recliner device according to claim 7 or 8, wherein said operating knob has a boss portion coaxial with said substantially cylindrical portion, said boss portion being provided with an axially protruding piece, one of an inner surface of said axially protruding piece and an outer surface of said ring-like receiving portion being formed with at least linear groove, the other of said inner surface of said axially protruding piece and said outer surface of said ring-like receiving portion being provided with at least one projection, said at least one groove and said at least one projection being adapted to be releasably engaged with each other.

10. A recliner device according to any one of claims 7 – 9, wherein said plate-like body of said receiving base has a dowel provided on a back side thereof and projecting from said back side, and said second bracket has a dowel hole formed in said rear end portion thereof, said dowel of said receiving base being fitted in said dowel hole of said second bracket.